CITY OF CARLSBAD

Development Services
Building Department
1635 Faraday Avenue
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RE-ROOF
B-10

A building permit is required to reroof all buildings when:

1. Removal of the existing roof is required by
   Appendix Chapter 15, 2007 California Building Code Sec. 1510.3;
   OR
2. Lighter weight roof covering is being replaced with tile.

(Engineering calculations may be required for the supporting structure)

The attached Supplemental Building Permit Application must be completed in addition to the standard building permit application.

Note Please: Combustible roof coverings are prohibited in Carlsbad per the City's adopted Building Code. All roof systems must be a minimum Class A System and the roof covering must be non-combustible.

Required Inspections:

1. Tear Off: This inspection is required for either existing or new sheathing or underlayment prior to installing new roof covering.
2. Final Inspection: When all roof coverings, and flashings are complete.

Date: 8/29/2000

To: Re-Roofing Contractors

Re: Roof Sheathing Application and Nailing Inspection

Generally, replacing wood shake roofs with a new roofing system also requires the application of a layer of new roof sheathing (plywood). This sheathing may be applied over spaced sheathing (skip sheathing), provided that the new sheathing is installed and fastened correctly. Field inspectors report a large incidence of this new sheathing being installed incorrectly. This memo is intended to provide the information necessary to install roof sheathing property over spaced sheathing and secure an approved inspection clearance. Note that this is not a new City policy; this is a summary of existing CBC requirements.

The new roof sheathing should be applied just as if it were being installed on a new house. Spaced sheathing is not a suitable nailing base for the new sheathing, because it does not provide the minimum fastener penetration. To summarize the Code requirements:

- The new sheathing should be applied at right angles to the underlying framing.
- The new sheathing should be installed "on module" with the roof trusses or framing.
- The new sheathing should have the narrow edges fully supported on the roof framing members (rafters or trusses)

Nails or staples should provide full penetration into the roof framing system.

- CBC Table 2304.9.1 requires 8d common nails to fasten roof sheathing to the underlying framing. This means that gun nails require 2" of penetration into framing members. There should be no "shiners" through spaced sheathing.
- Listed staples may also be used in lieu of common 8d nails.
  - Staples must be galvanized.
  - The staple crown must be a minimum of 7/16"
  - The staple legs shall provide a minimum of 1 1/8" penetration from 14 or 15 gauges and 11/4" penetration for 16 gauge staples. This means if the new sheathing is ½" thick, 16 gauge staples must be 13/4" in overall length.
  - Staples must be installed parallel to the underlying framing members (perpendicular to the grain of the plywood).

CITY OF CARLSBAD
POLICIES AND PROCEDURES

NUMBER: 97-50	SUBJECT: Re-Roof Sheathing Inspections During Inclement Weather
EFFECTIVE: 12/15/97	SECTION: BUILDING DEPARTMENT
SUPERSEDES:	

PURPOSE: To set forth the allowable procedure for re-roof inspections during periods of inclement weather.

INTENT: The intent of this policy is to establish a uniform procedure for inspecting the underlayment installation for re-roof projects while protecting the house from the threat of inclement weather. It is not the intent of this policy to allow roof sheathing to be covered without inspection during periods of dry weather or when there is no threat of inclement weather.

BACKGROUND: The threat of wet weather prompts many homeowners to contract to have their house re-roofed. In most cases this involves removing the old roof material and installing new underlayment (Plywood or proprietary OSB Board). A building permit and "tear off" inspection is required prior to placing the roofing materials.

POLICY: During periods of inclement weather, or when there is a threat of rain, roof sheathing on re-roof projects may be covered with a single layer of asphalt saturated felt and "dried in" prior to the roof sheathing inspection subject to the following conditions:

1. The roof shall not be loaded with roof covering materials until the sheathing has been approved.
2. The roofing contractor shall schedule a sheathing inspection and provide the inspector access to the roof sheathing.
    a. The roofing contractor shall provide an appropriate sized ladder on site for the inspection.
    b. The contractor shall call the morning of the inspection and inform the inspector of the circumstances of the inspection and arrange for either an a.m. or p.m. inspection.
    c. The roofing contractor must have an employee on site during the inspection to reveal portions of the new underlayment to the satisfaction of the inspector.
    d. If structural reinforcement to the roof framing is necessary, the repairs shall be shown to the inspector at that time.
    e. In the event the inspector determines the sheathing is nailed improperly, the roof sheathing shall be fully exposed an re-nailed. A re-inspection is then required.

Initiated By: Approved By:

TABLE 2304.9.1—continued
FASTENING SCHEDULE

CONNECTION	FASTENING[a,m]		LOCATION
30. Ledger strip	3 - 16d common ($3^1/_2$" × 0.162") 4 - 3" x 0.131" nails 4 - 3" 14 gage staples		face nail
31. Wood structural panels and particleboard[b] Subfloor, roof and wall sheathing (to framing)	$^1/_2$" and less	6d[c,l] $2\ ^3/_8$" × 0.113" nail[n] $1\ ^3/_4$" 16 gage[o]	
	$^{19}/_{32}$" to $^3/_4$"	8d[d] or 6d[e] $2\ ^3/_8$" × 0.113" nail[p] 2" 16 gage[p]	
	$^7/_8$" to 1"	8d[e]	
	$1\ ^1/_8$" to $1\ ^1/_4$"	10d[d] or 8d[d]	
Single Floor (combination subfloor-underlayment to framing)	$^3/_4$" and less	6d[e]	
	$^7/_8$" to 1"	8d[e]	
	$1\ ^1/_8$" to $1\ ^1/_4$"	10d[d] or 8d[e]	
32. Panel siding (to framing)	$^1/_2$" or less	6d[f]	
	$^5/_8$"	8d[f]	
33. Fiberboard sheathing[g]	$^1/_2$"	No. 11 gage roofing nail[h] 6d common nail (2" × 0.113") No. 16 gage staple[i]	
	$^{25}/_{32}$"	No. 11 gage roofing nail[h] 8d common nail ($2^1/_2$" × 0.131") No. 16 gage staple[i]	
34. Interior paneling	$^1/_4$"	4d[j]	
	$^3/_8$"	6d[k]	

For SI: 1 inch = 25.4 mm.

a. Common or box nails are permitted to be used except where otherwise stated.

b. Nails spaced at 6 inches on center at edges, 12 inches at intermediate supports except 6 inches at supports where spans are 48 inches or more. For nailing of wood structural panel and particleboard diaphragms and shear walls, refer to Section 2305. Nails for wall sheathing are permitted to be common, box or casing.

c. Common or deformed shank (6d - 2" × 0.113"; 8d - $2^1/_2$" × 0.131"; 10d - 3" × 0.148").

d. Common (6d - 2" × 0.113"; 8d - $2^1/_2$" × 0.131"; 10d - 3" × 0.148").

e. Deformed shank (6d - 2" × 0.113"; 8d - $2^1/_2$" × 0.131"; 10d - 3" × 0.148").

f. Corrosion-resistant siding (6d - $1^7/_8$" × 0.106"; 8d - $2^3/_8$" × 0.128") or casing (6d - 2" × 0.099"; 8d - $2^1/_2$" × 0.113") nail.

g. Fasteners spaced 3 inches on center at exterior edges and 6 inches on center at intermediate supports, when used as structural sheathing. Spacing shall be 6 inches on center on the edges and 12 inches on center at intermediate supports for nonstructural applications.

h. Corrosion-resistant roofing nails with $^7/_{16}$-inch-diameter head and $1^1/_2$-inch length for $^1/_2$-inch sheathing and $1\ ^3/_4$-inch length for $^{25}/_{32}$-inch sheathing.

i. Corrosion-resistant staples with nominal $^7/_{16}$-inch crown and $1\ ^1/_8$-inch length for $^1/_2$-inch sheathing and $1\ ^1/_2$-inch length for $^{25}/_{32}$-inch sheathing. Panel supports at 16 inches (20 inches if strength axis in the long direction of the panel, unless otherwise marked).

j. Casing ($1^1/_2$" × 0.080") or finish ($1^1/_2$" × 0.072") nails spaced 6 inches on panel edges, 12 inches at intermediate supports.

k. Panel supports at 24 inches. Casing or finish nails spaced 6 inches on panel edges, 12 inches at intermediate supports.

l. For roof sheathing applications, 8d nails ($2^1/_2$" × 0.113") are the minimum required for wood structural panels.

m. Staples shall have a minimum crown width of $^7/_{16}$ inch.

n. For roof sheathing applications, fasteners spaced 4 inches on center at edges, 8 inches at intermediate supports.

o. Fasteners spaced 4 inches on center at edges, 8 inches at intermediate supports for subfloor and wall sheathing and 3 inches on center at edges, 6 inches at intermediate supports for roof sheathing.

p. Fasteners spaced 4 inches on center at edges, 8 inches at intermediate supports.

SUPPLEMENTAL BUILDING PERMIT APPLICATION

1. JOB ADDRESS:_____

2. TYPE OF BUILDING: RESIDENTIAL_____ COMMERCIAL_____

3. ROOF SLOPE: RISE_____ INCHES IN 12 INCHES

4. NUMBER OF EXISTING ROOF COVERING (CIRCLE ONE) 1 2 3

5. TYPE OF EXISTING ROOF COVERING_____SHEATHING_____

*6. NEW ROOF MATERIAL _____CLASS_____WEIGHT PER SQ._____

7. NUMBER OF SQUARES_____

8. TRADE NAME_____ MANUFACTURER_____

9. ROOF SYSTEM LISTING:

UL NO. _____ I.C.C.E.S. Report #_____

ASTM _____

10. IS THE EXISTING STRUCTURAL DESIGN SUFFICIENT TO SUSTAIN THE WEIGHT OF THE PROPOSED ROOF? YES NO

All roof coverings are required to be CLASS A. Combustible roof coverings of any type or classification are prohibited.

I understand the following inspections are required:

1. Tear Off/Pre-Inspection prior to install new roof covering
2. Final Inspection

I agree to provide a ladder extending at least 2 rungs above the roof for inspection.

Signature_____Date_____

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Contractor_____Owner_____Contractor

Name_____

*6. Rolled Roofing, Standard/Lite Tile, Asphalt/Comp fiberglass, Built Up, Other